EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|---|------------------------------|---------------------|---------|---------------------|
| S1 | 1 | ("20060000993").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/09/04 16:48 |
| S2 | 1 | ("5570744").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/09/04 16:54 |
| S3 | 8 | ("1959368" "2178846" "3351136" "5570744" "6723158").PN. | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:24 |
| S4 | 895 | 166/285.ccls. | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:26 |
| S7 | 3 | S4 decelerating | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:31 |
| S8 | 23 | S4 spiral | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:31 |
| S9 | 0 | S7 S8 | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:31 |
| S10 | 270 | 138/142.ccls. | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:45 |
| S11 | 0 | S10 downhole | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:45 |
| S12 | 0 | S10 wellbore | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:45 |
| S13 | 0 | S12 shoe | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:45 |
| S14 | 82 | "166".clas. spiral valve shoe | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:50 |
| S15 | 229 | "166".clas. (spiral OR helical) valve shoe | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:51 |

| S16 | 114 | "166".clas. (spiral OR helical) valve shoe (latch OR lock) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 10:51 |
|-------------|-----|---|------------------------------|-----|-----|---------------------|
| S17 | 80 | S4 (float ADJ collar) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 11:05 |
| S18 | 2 | S17 (anti-rotation) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 |
| S19 | 0 | S17 (axial ADJ (lock OR locking)) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 11:44 |
| S20 | 1 | S4 (axial ADJ (lock OR locking)) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 11:44 |
| S21 | 0 | "166".clas. shoe NEAR (axial ADJ (lock OR locking)) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 11:44 |
| S22 | 0 | "166".clas. (shoe NEAR (axial ADJ (lock OR locking))) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 11:44 |
| S23 | 0 | "166".clas. (shoe WITH (axial ADJ (lock OR locking))) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 11:44 |
| S24 | 30 | "166".clas. ((axial ADJ (lock OR locking))) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 11:45 |
| \$25 | 189 | S4 (lock OR locking OR latch) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 11:46 |
| S26 | 5 | S4 ((lock OR locking OR latch) NEAR shoe) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 11:46 |
| S2 7 | 2 | S4 ((opposite OR opposing) NEAR (helix OR helical OR sprial)) | US-PGPUB; USPAT; USOCR | AND | OFF | 2008/09/05 14:00 |

^{9/8/2008 10:20:44} AM

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